17. Details of share capital movements

				Number o	Number of shares ⁽¹⁾			
	January 1, 1999	Movement in year	December 31, 1999	Movement in year	December 31, 2000	December 31, 2000 restated after share split ⁽²⁾	Movement in year	December 31, 2001
Total Novartis shares	72,130,117		72,130,117		72,130,117	2,885,204,680		2,885,204,680
Treasury shares Shares reserved for convertible bonds Shares reserved for call options	168,747	(37,625)	131,122	(13,206)	117,916	4,716,640	(212,886)	4,503,754
Unreserved treasury shares	5,602,733	777,902	6,380,635	464,676	6,845,311	273,812,440	3,806,264	277,618,704
Total treasury shares	5,771,480	740,277	6,511,757	451,470	6,963,227	278,529,080	58,495,340	337,024,420
Total outstanding shares	66,358,637	(740,277)	65,618,360	(451,470)	65,166,890	2,606,675,600	(58,495,340)	2,548,180,260
				(in CHF	(in CHF millions)			
Share capital Treasury shares	1,443	(15)	1,443 (130)	(6)	1,443 (139)	1,443 (139)	(30)	$\frac{1,443}{(169)}$
Capital	1,328	(15)	1,313	(6)	1,304	1,304	(30)	1,274

On April 21, 1999 the Company's Annual General Meeting approved the conversion of all Novartis AG's 8,071,868 bearer shares into an equal number of registered shares. All shares are now registered, authorized, issued and fully paid. All are voting shares and, except for 263,613,980 treasury shares, are dividend bearing. Ξ

On March 22, 2001 the Company's Annual General Meeting approved the division of each registered share of Novartis AG into 40 identical registered shares and thereby to change their nominal value from CHF 20.00 each to CHF 0.50 each. 3

18. Long-term financial debts

	2001	2000
	(CHF millions)	(CHF millions)
Convertible bonds	1,182	1,110
Straight bonds	2,325	961
Liabilities to banks and other financial institutions ⁽¹⁾	277 4	278 8
	***************************************	400 Mark Strate
Total (including current portion of long-term debt)	3,788 (1,296)	2,357 (74)
Total long-term debts	2,492	2,283
Convertible bonds		
USD		
USD 750 million 2.00% convertible bonds 1995/2002 of Novartis	1.172	1.005
Capital Ltd., British Virgin Islands ⁽²⁾	1,163	1,085
CHF 750 million 1.25% convertible bonds 1995/2002 of Novartis		
Capital Ltd., British Virgin Islands ⁽³⁾	19	25
Total convertible bonds	1,182	1,110
Straight bonds		
USD		
USD 300 million 6.625% Euro Medium Term Note 1995/2005 of	70.	402
Novartis Corporation, Summit, New Jersey, USA USD	504	492
USD 250 million 6.625% Euro Medium Term Note 1995/2005 of		
Novartis Corporation, Summit, New Jersey, USA	420	410
USD		
USD 36 million 9.0% bonds 2006 of Gerber Products, Fremont	60	59
EUR		
EUR 900 million 4.0% bond 2001/2006 of Novartis Securities Investment Ltd., Hamilton, Bermuda ⁽⁴⁾	1,341	
Total straight bonds	2,325	<u>——961</u>

⁽¹⁾ Average interest rate 3.6% (2000: 3.7%).

⁽²⁾ Bonds of USD 10,000 par value are convertible up to September 30, 2002 into approx. 384,167 issued and outstanding, fully paid registered shares of Novartis AG. Novartis Capital Ltd. has acquired options from the non-consolidated employee share participation and employee benefit foundations to cover partly its obligation to deliver shares under the conversion terms of the bonds. It also has options to cover the balance of its obligations from entities, which are consolidated. At December 31, 2001 the outstanding hedge with the non-consolidated entities represented 23.8 million shares. An appropriate number of treasury shares are reserved for the balance. At December 31, 2001 bonds totaling USD 32.6 million had been converted. The difference between the nominal value of USD 717.4 million and the balance sheet value of USD 692.6 million is due to the discount from the original debt value to the maturity value of 100%.

⁽³⁾ Bonds of CHF 5,000 par value are convertible up to October 9, 2002 into 200 issued and outstanding, fully paid shares of Novartis AG and 5 issued and outstanding fully paid shares of Syngenta AG with each converting bondholder receiving an amount of CHF 239.95 per bond in cash. Novartis Capital Ltd. has acquired options from consolidated entities to cover its obligation to deliver shares under the conversion terms of the bonds. An appropriate number of treasury shares and Syngenta AG shares are reserved. At December 31, 2001 bonds totaling CHF 730.8 million had been converted.

⁽⁴⁾ Swapped into Japanese yen on inception.

18. Long-term financial debts (Continued)

			2001	2000
			(CHF millions)	(CHF millions)
Breakdown by maturity:				
2001				74
2002	• • • • • • • • • • • • •		1,296	1,204
2003	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	30	21
2004	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • •	49	40
2005			940	907
2006			1,416	***
Thereafter	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • •	57	111
Total			3,788	2,357
Breakdown by currency:				
USD			2,174	2,068
EUR			174	124
CHF			20	26
JPY			1,392	59
Others	• • • • • • • • • • • • • • • • • • • •		28	80
Total		• • • • • • • • • • • • • • • • • • • •	3,788	<u>2,357</u>
	2001	2001	2000	2000
	Balance Sheet	Fair Values	Balance Sheet	Fair Values
	(CHF millions)	(CHF millions)	(CHF millions)	(CHF millions)
Fair value comparison:				
Convertible bonds	1,182	1,713	1,110	2,079
Straight bonds	2,325	2,348	961	984
Others	281	281	286	286
Total	3,788	4,342	2,357	<u>3,349</u>
			2001	2000
			(CHF millions)	(CHF millions)
Collateralized long-term debts an Total amount of collateralized long-term debts and Total and thought walks of tongible.	ng-term financial o		235	263
Total net book value of tangible for long-term financial debts .			81	168

The financial debts including short-term financial debts, contain only general default covenants. The Group is in compliance with these covenants.

The percentage of fixed rate debt to total financial debt was 46% and 34% at December 31, 2001 and 2000, respectively.

19. Other long-term liabilities

	2001	2000
	(CHF millions)	(CHF millions)
Employee benefits		
—unfunded defined benefit plans	1,102	888
—other long-term employee benefits and deferred compensation	186	379
Other post-employment benefits	698	676
Liabilities for insurance activities	719	627
Environmental provisions	224	207
Provision for legal and product liability settlements	337	357
Deferred purchase consideration		217
Restructuring provision	10	17
Other provisions	554	477
Total	3,830	3,845

20. Movements in other long-term liabilities

(a) Restructuring charges

The Group has experienced significant merger and divestment activity since 1996, when Sandoz AG and Ciba-Geigy AG merged to form Novartis, and the Group divested Ciba Specialty Chemicals ("CSC") with effect from January 1, 1997. Restructuring accruals in 1996 totaled CHF 4,126 million, comprised of employee termination costs of CHF 1,945 million, other third party costs of CHF 1,594 million and tangible fixed asset impairments of CHF 587 million. Charges for restructuring plans were related to continuing operations, including the reduction of excess staffing, the streamlining of facilities and operations and other restructuring measures. 12,000 employees were identified in the original plan all of whom have now left the Group. All other significant actions associated with the restructuring charge have been completed by December 31, 2001 with the exception of CHF 82 million relating primarily to non-cancelable lease payments for unoccupied office space in the US.

In June 1999, the Agribusiness sector initiated "Project Focus". The charges of CHF 100 million incurred in conjunction with this project were comprised of employee termination costs of CHF 61 million, other third party costs of CHF 22 million and tangible fixed asset impairments of CHF 17 million. 1,100 employees were identified in the original plan, 700 of whom had left the Group as of the Agribusiness spin-off date of November 6, 2000. The remaining employees and the corresponding restructuring provisions were transferred to Syngenta.

In July 1999, charges of CHF 70 million were incurred in conjunction with the plan to downsize certain pharmaceutical production facilities mainly in the USA and Canada. The charges comprised employee termination costs of CHF 54 million and other third party costs of CHF 16 million. 146 employees were identified in the original plan, all of whom have left the Group as of December 31, 2001.

In October 2000, the CIBA Vision sector acquired Wesley Jessen VisionCare Inc., a leading worldwide developer, manufacturer and marketer of specialty contact lenses. Total costs of CHF 118 million were incurred in connection with the integration and restructuring of the CIBA Vision and Wesley Jessen activities worldwide. CHF 41 million was charged to operating income and CHF 77 million was included in the net assets acquired. The total cost comprised employee termination costs of CHF 59

20. Movements in other long-term liabilities (Continued)

million, other third party costs of CHF 35 million and tangible fixed asset impairments of CHF 24 million. 1 100 employees were identified in the original plan, of which 85 remain employed by the Group as of December 31, 2001, but all of whom are expected to leave in 2002. All other significant actions associated with the plan are expected to be completed during 2002.

In November 2000, charges of CHF 15 million were incurred in conjunction with the closure and relocation of part of the Generics operations in the USA. All of these charges are for employee termination costs. 200 employees were identified in the original plan, of which 2 remain employed by the Group as of December 31, 2001 but all of whom are expected to leave in 2002. All other significant actions associated with the plan are expected to be completed during 2002.

In December 2000, charges of CHF 40 million were incurred in conjunction with the closure and sale of the Pharmaceuticals sector Summit site in the USA. The charges comprised employee termination costs of CHF 10 million and other third party costs of CHF 30 million. 122 employees were identified in the original plan, of which 73 remain employed by the Group as of December 31, 2001, but all of whom are expected to leave in 2002. All other significant actions associated with the plan are expected to be completed by March 2003.

In May 2001, charges of CHF 21 million were incurred in relation to the closure of the Consumer Health production facility in Kings Langley, UK. The charges comprised employee termination costs of CHF 19 million and other third party costs of CHF 2 million. 250 employees were identified in the original plan, of which 240 remain employed by the Group as of December 31, 2001, but all of whom are expected to leave in 2002.

The releases to income in 2001, 2000 and 1999 of CHF 18 million, CHF 39 million and CHF 284 million, respectively were mainly due to settlement of liabilities at lower amounts than originally anticipated.

20. Movements in other long-term liabilities (Continued)

	Employee termination costs (CHF millions)	Tangible fixed asset impairments (CHF millions)	Other third party costs (CHF millions)	Total (CHF millions)
Balance at January 1, 1999	455	300	581	1,336
Cash payments	(251)	(15)	(222)	(488)
Releases	`(89)	(2)	(193)	(284)
Additions	115	ì7 [′]	` 38	`170 [′]
Non-income tangible fixed				
asset write-offs		(278)		(278)
Translation effect, net	50	20	34	104
Balance at December 31, 1999.	280	42	238	560
Cash payments	(201)		(91)	(292)
Releases	(20)	(8)	(11)	`(39)
Additions	90	24	64	178
Non-income tangible fixed				
asset write-offs		(4)		(4)
Effect of Agribusiness spin-off.	(10)	(2)	(6)	(18)
Translation effect, net	1	1	10	12
Balance at December 31, 2000.	140	53	204	397
Cash payments	(85)		(83)	(168)
Releases	(16)	(1)	(1)	(18)
Additions	19		2	21
Translation effect, net	1		3	4
Balance at December 31, 2001.	59	52	125	236
Included in short-term liabilities				226
Included in long-term liabilities				10
Total				236

Tangible fixed asset impairments are determined based on the review of the carrying values of tangible fixed assets. Write-downs are recorded for tangible fixed assets impaired or related to activities to be restructured, divested or abandoned. The provision is transferred to accumulated depreciation as the tangible fixed assets are restructured, divested or abandoned. Other third party costs are mainly associated with lease and other obligations due to the abandonment of certain facilities.

In 2000, CHF 77 million of the additions arose from provisions made during the acquisition of Wesley Jessen. In 2001, there were also CHF 30 million (2000: CHF 7 million) of tangible fixed asset impairments which were charged directly to the income statement without being recorded in the restructuring provision.

20. Movements in other long-term liabilities (Continued)

(b) Environmental matters

Novartis has provisions in respect of environmental remediation costs in accordance with the accounting policy described in Note 1. These provisions include future remediation payments totaling CHF 22 million which have been discounted at a risk free rate of 6% to a recorded liability of CHF 11 million. These discounted amounts will be paid out over the period of remediation for the applicable sites, which is expected to be 30 years. The accrual recorded at December 31, 2001 consists of CHF 106 million provided for remediation at third-party sites and CHF 122 million for remediation of owned facilities.

In the USA, Novartis Agribusiness was named under federal legislation (the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended) as a potentially responsible party ("PRP") in respect to several sites. The responsibility for these sites was allocated to Syngenta as part of the spin-off process. Novartis actively participates in, or monitors, the clean-up activities at the sites in which it is a PRP. The estimated reserve takes into consideration the number of other PRPs at each site and the identity and financial position of such parties in light of the joint and several nature of the liability.

The requirement in the future for Novartis ultimately to take action to correct the effects on the environment of prior disposal or release of chemical substances by Novartis or other parties, and its costs, pursuant to environmental laws and regulations, is inherently difficult to estimate. The material components of the environmental provisions consist of a risk assessment based on investigation of the various sites. Novartis' future remediation expenses are affected by a number of uncertainties which include, but are not limited to, the method and extent of remediation, the percentage of material attributable to Novartis at the remediation sites relative to that attributable to other parties, and the financial capabilities of the other potentially responsible parties.

Novartis believes that its reserves are adequate based upon currently available information, however, given the inherent difficulties in estimating liabilities in this area, it cannot be guaranteed that additional costs will not be incurred beyond the amounts accrued. The effect of resolution of environment matters on results of operations cannot be predicted due to uncertainty concerning both the amount and the timing of future expenditures and the results of future operations. Management believes that such additional amounts, if any, would not be material to the Novartis financial condition but could be material to the Novartis results of operations in a given period.

20. Movements in other long-term liabilities (Continued)

Environmental liability provisions

	2001	2000	1999
	(CHF millions)	(CHF millions)	(CHF millions)
January 1	214	379	310
Cash payments	(3)	(35)	(18)
Releases	(6)		
Additions	22	24	70
Effect of Agribusiness spin-off		(166)	
Translation effect, net	1	12	17
December 31	228	214	379
Less short-term liability	(4)	(7)	(47)
Long-term liability at December 31	<u>224</u>	<u>207</u>	332

(c) Provisions for legal and product liabilities

	2001	2000	1999
	(CHF millions)	(CHF millions)	(CHF millions)
January 1	639	496	358
Cash payments	(190)	(43)	(36)
Releases	(24)	, ,	` '
Additions	129	283	103
Effect of Agribusiness spin-off		(98)	
Translation effect, net	(24)	1	71
December 31	530	639	496
Less short-term liability	(193)	(282)	
Long-term liability at December 31	337	357	496

21. Short-term financial debts

	2001	2000
	(CHF millions)	(CHF millions)
Interest bearing employee accounts	1,134	1,216
Other bank and financial debt	1,629	1,837
Commercial paper	1,004	408
Current portion of long-term financial debt	1,296	74
Financial obligation for repurchase agreements	11	244
Total	5,074	3,779

21. Short-term financial debts (Continued)

The balance sheet values of short-term financial debt, other than the current portion of long-term financial debts, approximates to the estimated fair value due to the short-term nature of these instruments.

The weighted average interest rate on the bank and other financial debt was 3.8%, 4.5%, and 4.6% as of December 31, 2001, 2000, and 1999 respectively.

22. Other short-term liabilities

	2001	2000
	(CHF millions)	(CHF millions)
Income and other taxes	879	1,263
Restructuring provisions	226	380
Accrued expenses	3,479	3,098
Current portion of provision for potential claims from insurance		
activities	299	250
Social security/pension funds	101	150
Current portion of environmental provisions	4	7
Deferred income relating to government grants	22	25
Deferred divestment proceeds		155
Deferred purchase consideration	240	
Fair value of financial derivatives	1,134	91
Provisions for goods returned and commissions	14	14
Provision for legal and product liability settlements	193	282
Amount due to Syngenta	2	25
Other payables	753	_530
Total	7,346	6,270

23. Cash flows arising from changes in working capital excluding restructuring items

	2001	2000	1999
	(CHF millions)	(CHF millions)	(CHF millions)
Change in inventories	(77)	230	469
net current assets	33	(229)	(1,257)
Change in trade accounts payable	249	106	294
Total	205	107	(494)

24. Cash flows arising from major acquisitions and divestments of subsidiaries

The following is a summary of the cash flow impact of the major divestments and acquisitions of subsidiaries:

	2001 Acquisitions	2001 Divestments	2000 Acquisitions	2000 Divestments	1999 Acquisitions	1999 Divestments
			(CHF n	nillions)		
Tangible fixed assets Other long-term assets	(52) (61)	23	(199) (105)	2,491 2,415	(77) (42)	148 16
Inventories	(46)		(196)	2,551	(56)	55
and other current assets Marketable securities, cash	(73)		(165)	2,631	(163)	70
and short-term deposits Long-term and short-term	(18)		(51)	(70)	(7)	13
debt to third parties Trade accounts payable and	148		200	(3,336)	106	(49)
other liabilities	83	$\frac{2}{25}$	635	(2,918)	73	
Net assets acquired/divested. Less acquired/divested	(19)	25	119	3,764	(166)	270
liquidity	18		51	70	8	(13)
in associated companies	111				23	
Sub-total	110 (349)	25	170 (1,612)	3,834	(135) (203)	257
Syngenta —proceeds received from Novartis shareholders in respect of Syngenta				(4,463)		
related purchase rights .				687	20	(7)
—other		<u>45</u>		12 1	39	(7) <u>288</u>
Net Cash Flow	<u>(239)</u>	70	<u>(1,442)</u>	<u>71</u>	<u>(299)</u>	538

The significant changes in the companies that have been consolidated are described in Note 2.

All acquisitions were for cash. The significant divestment in 2000 was the spin-off of Novartis Agribusiness to form Syngenta AG.

24. Cash flows arising from major acquisitions and divestments of subsidiaries (Continued)

The following are the cash flows from the discontinued Agribusiness sector included in the consolidated cash flow statement.

	2000	1999
	(CHF millions)	(CHF millions)
Cash flow from operating activities	1,437	927
Cash flow from investing activities	(166)	(425)
Cash flow from financing activities	(818)	(525)

25. Changes in consolidated equity

(a) The following is a summary of the adjustments resulting from adopting IAS 19 from January 1, 1999:

	(CHF millions)
Unrecognized funded pension surpluses	1,673
Additional unfunded pension deficits	_(489)
Net increase in assets from pension plans	1,184
Previously unrecognized actuarial gains from unfunded other post-employment	
benefit plans	218
Deferred tax	(316)
Minority interest	(15)
Net increase in equity at January 1, 1999	<u>1,071</u>

- (b) The Board of Directors proposes a dividend of CHF 0.90 per share for 2001 (2000: CHF 0.85 per share amounting to CHF 2.2 billion which was paid in 2001; 1999: CHF 0.72 per share amounting to CHF 2.1 billion which was paid in 2000) totaling CHF 2.4 billion for all dividend bearing shares, or CHF 2.3 billion on all shares outstanding at December 31, 2001. The amount available for dividend distribution is based on the Novartis AG's shareholders' equity determined in accordance with the legal provisions of the Swiss Code of Obligations.
- (c) At the extraordinary general meeting of October 11, 2000 the shareholders reduced the Novartis AG share premium account to the legal minimum by approving a transfer of the excess to the Group's available retained earnings.
- (d) The effect of the Agribusiness spin-off is shown net of the amount received from shareholders for the exercise of purchase rights of CHF 687 million.
- (e) During the year bonds were sold and the subsidiary holding the bonds was liquidated. This resulted in CHF 641 million (2000: CHF 1,041 million) of cumulative translation differences and a CHF 34 million hedging loss (2000: CHF 96 million hedging gain) being transferred to financial income, net.

25. Changes in consolidated equity (Continued)

(f) The amount recorded directly to equity as a result of adopting IAS 39 on financial instruments from January 1, 2001 and the 2001 changes in the fair value of financial instruments and transfers to the income statement consist of the following:

	Retained earnings	Fair value of deferred cash flow hedges	Total
	(CHF millions)	(CHF millions)	(CHF millions)
January 1, 2001 fair value adjustments			
Available-for-sale marketable securities	1,891		1,891
Derivative financial instruments	265	138	403
Deferred tax on above	(213)	(35)	_(248)
Effect of introducing IAS 39 on January 1,			
2001	1,943	103	2,046
Changes in fair value:			
—Available-for-sale marketable securities	(150)		(150)
—Cash flow hedges		18	18
Realized gains or losses transferred to the			
income statement:			
—marketable securities sold	(648)		(648)
—derivative financial instruments	(265)	(152)	(417)
Impaired securities and investments	101		101
Deferred tax on above	73	11	84
Fair value adjustments at December 31, 2001	1,054	<u>(20)</u>	1,034

- (g) CHF 3,848 million of treasury shares were acquired during 2001 under the Group's second share buy-back program. A further CHF 7 million of treasury share movements arise from non-cash treasury share purchases by the Group's associated company, Chiron Corporation, USA.
- (h) During December 2001, Novartis sold a total of 55 million ten-year call options (Low Exercise Price Options—"LEPOs") on Novartis shares, with an exercise price of CHF 0.01, to a third party receiving EUR 2.2 billion in proceeds (EUR 40 per LEPO). It is the current intention that the LEPOs will be settled using Novartis treasury shares. The Group has accounted for the LEPOs as an increase in share premium at fair value less related issuance costs. Exercises will be recorded as a share issuance with no gains or losses recorded in the consolidated income statement.
- (i) Novartis sold a total of 55 million nine and ten-year put options on Novartis shares to a third party with an exercise price of EUR 51 receiving EUR 0.6 billion in proceeds (EUR 11 per put option). The put options can be exercised in annual tranches between the years three and ten, and can be either physically settled or net share settled at the discretion of Novartis. Under the terms of the put option agreement the number of Novartis shares required for settlement could change under certain circumstances. The contractual terms of the put options place a limit on the number of shares to be delivered in a net share settlement, such that Novartis cannot under any circumstances be forced into a physical settlement by the counterparty. If however the Group chooses to physically settle the put options, this would result in a cash payment to the counterparty. The total possible cash payment measured at the earliest possible exercise date for the two tranches of put options (2004 and 2005)

25. Changes in consolidated equity (Continued)

would amount to EUR 3.1 billion, increasing to EUR 3.8 billion at the expiry dates (2010 and 2011) of the two tranches. Novartis may also accelerate the exercise date and expiration date for any outstanding options at any time on or after December 6, 2006 at the accreted exercise price of the put options under certain conditions. The Group has accounted for the option premium associated with the put options as an increase in share premium less related issuance costs. Exercises will be recorded as treasury share transactions with no gains or losses recorded in the consolidated income statement.

The increase of equity due to (h) and (i) above is after deduction of fees and related taxes of CHF 118 million of which CHF 45 million has yet to be paid.

Total recognized gains and losses, representing the total of net income and translation effects allocated to equity and in 2001, the year's movement in the fair value of financial instruments, for the years ended December 31, 2001, 2000, and 1999 were CHF 5,375 million, CHF 6,639 million, and CHF 8,603 million, respectively.

26. Employee benefits

Defined benefit obligation

The Group has, apart from the legally required social security schemes, numerous independent pension plans. For certain Group companies, however, no independent assets exist for the pension and other long-term employee benefit obligations. In these cases the related liability is included in the balance sheet.

Defined benefit pension plans cover the majority of the Group's employees. The defined benefit obligations and related assets of all major plans are reappraised annually by independent actuaries.

Plan assets are recorded at fair values. The defined benefit obligations of all significant plans are covered by assets. The surplus on implementing revised IAS 19 was reported as an adjustment to the opening balance of retained earnings as of January 1, 1999.

The following is a summary of the status of the main defined benefit plans at December 31, 2001, and 2000:

	2001	2000
	(CHF millions)	(CHF millions)
Funded assets of independent defined benefit pension plans Defined benefit obligations of active and retired employees	23,361 (18,616)	25,426 (17,662)
Funded Status	4,745	7,764
future benefits	(1,422)	(1,965)
Unrecognized actuarial loss/(gain)	417	(2,581)
Net asset in balance sheet	3,740	3,218

26. Employee benefits (Continued)

The net asset in the balance sheet consists of:

	2001	2000	
	(CHF millions)	(CHF millions)	
Prepaid pension expense included in financial assets	4,842	4,106	
Accruca pension costs included in other long-term madmitles	<u>(1,102)</u>	_(888)	
Total net asset	3,740	3,218	

The following are the principal actuarial assumptions, used for calculating the 2001, 2000, and 1999 income statement amounts and the above December 31, 2001 and 2000 funded status of the main defined benefit plans:

		Income statement			Funded status	
Weighted average %	2001	2000	1999	2001	2000	
	%	%	%	%	%	
—discount rate	4.6	4.1	3.6	4.6	4.5	
—payroll indexation	2.8	2.8	2.8	2.8	2.8	
—return on assets	6.1	6.2	6.1	6.1	6.2	

In some Group companies employees are covered by defined contribution plans and other long-term employee benefits. The liability of the Group for these benefits is reported in other long-term employee benefits and deferred compensation and at December 31, 2001 amounts to CHF 186 million (2000: CHF 379 million). In 2001 contributions charged to the consolidated income statement for the defined contribution plans were CHF 113 million (2000: CHF 91 million, 1999: CHF 122 million).

The number of Novartis AG shares held by pension and similar benefit funds at December 31, 2001 was 34 million shares with a market value of CHF 2.0 billion (2000: CHF 44 million shares with a market value of CHF 3.1 billion).

The plan disposed of 8.5 million Novartis AG shares during the year ended December 31, 2001 (2000: 4.5 million shares). The amount of dividends received on Novartis AG shares held as plan assets was CHF 34 million for the year ended December 31, 2001 (2000: CHF 37 million).

Other post-employment benefits

The Group's post-employment healthcare, insurance and other related post-employment benefits are not funded.

26. Employee benefits (Continued)

The following are the principal actuarial assumptions used for calculating these post-employment benefits:

	2001	2000	1999
	Weighted average	Weighted average	Weighted average
	%	%	%
—discount rate	7.5	7.7	7.7
—healthcare cost trend (initial)	9.0	5.9	5.9
—healthcare cost trend (ultimate)	4.8	4.8	4.8

The following is a summary of the balance sheet movements in relation to defined benefit plans and other post-employment benefits:

	Defined benefit pension plans		Other post- employment benefits		
	2001	2000	2001	2000	
	(CHF millions)	(CHF millions)	(CHF millions)	(CHF millions)	
Asset/(liability) at January 1	3,218	2,564	(676)	(630)	
Increase in prepaid pensions	736	419			
Decrease/(increase) in accrued liabilities	(214)	235	(22)	(46)	
Asset/(liability) at December 31	3,740	3,218	(698)	(676)	

The amounts recognized in the income statement are as follows:

	Defined benefit pension plans				Other post- oyment ben	efits
	2001 2000		2000 1999		2000	1999
	(CHF millions)	(CHF millions)	(CHF millions)	(CHF millions)	(CHF millions)	(CHF millions)
Expected return on plan assets	1,517	1,584	1,505			
Employee contributions	33	39	35			
Current service cost	(359)	(467)	(543)	(15)	(11)	(15)
Interest cost	(825)	(857)	(784)	(52)	(48)	(47)
Amortization of actuarial gains	, ,	, ,	, ,	, ,	, ,	
and losses	(21)	49		(5)	(18)	
Income/(expense) $^{(1)}$	345	348	213	(72)	<u>(77)</u>	(62)

⁽¹⁾ In 2001 CHF 108 million of settlement gains associated with Group restructuring were included in pension income. In 2000, settlement gains of CHF 52 million resulting from the Agribusiness spin-off were directly credited to equity.

26. Employee benefits (Continued)

The actual return on plan, assets for 2001 taking into account realized and unrealized capital gains and losses was a loss of CHF 737 million (2000: CHF 2,949 million gain; 1999: CHF 1,429 million gain).

27. Employee share participation plans

In May 2001 Novartis AG shares were split 40 to 1. All references to 2000 and 1999 have been restated to reflect this change.

Employee and management share participation plans exist as follows:

Swiss Employee Share Ownership Plan

In 1998, a Swiss Employee Share Ownership Plan was introduced for all employees of Swiss subsidiaries. This entitles employees after 1 year of service to acquire 120 shares in Novartis AG every year at a price determined by the Board's compensation committee, which is currently CHF 12.50 per share. Employees are immediately required to buy the shares to which they have become entitled. During the year 862,720 shares (2000: 1,429,520 shares) were distributed under this plan.

Non-US Novartis Stock Option Plan

Under the current plan, options, exercisable after two years and terminating after nine years, are granted annually as part of the remuneration of executive officers and other employees outside of the USA, selected by the Board's compensation committee. Each option entitles them to acquire Novartis AG shares (40 shares per option) at a predetermined strike price. The number of options granted depends on the performance of the individuals and the sector in which they work.

	2001			2000		
	Options	Weighted average exercise price ⁽¹⁾	Options	Weighted average exercise price ⁽¹⁾		
	(000)	(CHF)	(000)	(CHF)		
Options outstanding at January 1	147	53	89	53		
Granted	62	70	61	51		
Exercised	(24)	50	(2)	27		
Cancelled	(4)	_59	_(1)	_59		
Outstanding at December 31	<u>181</u>	59	<u>147</u>	53		
Exercisable at December 31	_61		_49	45		
Weighted average fair value of options on 40 shares granted during the year (CHF).		<u>937</u>		900		

^{(1) 40} shares per option; exercise price indicated is per share.

All options were granted at an exercise price which was greater than the market price of the Group's shares at the grant date.

27. Employee share participation plans (Continued)

The following table summarizes information about Novartis share options outstanding at December 31, 2001:

	Options outstanding			Options exercisable	
Range of exercise prices(1)	Number Outstanding	Average remaining contractual life	Weighted average exercise price	Number exercisable	Weighted average exercise price
(CHF)	(000)	(years)	(CHF)	(000)	(CHF)
41–46	26	5.2	43	26	42
51–73	155	7.4	62	35	69
	181	7.1	59	61	<u>56</u>

^{(1) 40} shares per option; exercise price indicated is per share.

US ADS Incentive Plan

The US ADS Incentive Plan was introduced in 2001 and supplements the previous US Management ADS Appreciation Cash Plan. Under the US ADS Incentive Plan, options are granted annually on Novartis ADSs at a pre-determined strike price as part of the remuneration of executive officers and other employees selected by the Board's compensation committee. The number of options granted depends on the performance of the individuals and of the sector in which they work. Options are exercisable after three years and terminate after ten years. Under the previous US Management ADS Appreciation Cash Plan, Novartis employees in the USA were entitled to cash compensation equivalent to the increase in the value of Novartis ADSs compared to the market price of the ADSs on the grant date.

In 2001, 8,526,650 options on ADSs were granted (2000: 4,863,940 ADS Appreciation Rights on Novartis ADSs).

Management Share Programs

In 2001 and 2000 Management Share Programs were established. The grants in relation to these programs are designed to foster long-term participation for eligible employees by aligning their contribution to the long-term performance of the Group and for special contributions. In certain programs grants vest only after three years. During 2001 a total of 499,194 shares (2000: 307,520 shares) were granted to executive officers and other employees.

Leveraged Share Savings Program

In 2001, a new Leveraged Share Savings Program was offered to selected executive officers and other employees, who can make an election to receive all or part of their regular cash bonus in shares. If shares are received instead of cash, the shares are blocked for a five-year period. At the end of the blocking period, Novartis will match the bonus taken in shares on a one-for-one basis. During 2001, 209,240 shares were chosen to be taken under this program instead of a cash bonus.

All of the above mentioned plans are wholly funded by a Novartis employee share participation foundation which is not consolidated.

27. Employee share participation plans (Continued)

Movements in Novartis AG shares held by the Novartis employee share participation foundation were as follows:

	Number of shares 2001	Number of shares	Number of shares				
		2001	2001	2001 2000	2001	2001	1 2000
	(000)	(000)	(000)				
January 1	98,000	89,720	68,680				
Shares bought in the market	4,175	9,720	22,600				
Shares distributed to employees	(863)	<u>(1,440</u>)	(1,560)				
December 31	101,312	98,000	89,720				

The market value of the Novartis AG shares held by the foundation at December 31, 2001 was CHF 6.1 billion (2000: CHF 7.0 billion).

28. Related parties

The Novartis Group has formed certain foundations with the purposes of advancing employee welfare, employee share participation, research and charitable contributions. The charitable foundations foster health care and social development in rural countries. The foundations are autonomous, and their boards are responsible for administering the foundations in accordance with the foundations' purpose and applicable law.

The employee share participation foundation has not been included in the consolidated financial statements prepared under IAS as Interpretation No. 12 of the IAS Standing Interpretations Committee exempts post-employment and equity compensation plans from its scope. The total assets of this foundation as of December 31, 2001 included 101.3 million shares of Novartis AG with a market value of CHF 6.1 billion. As of December 31, 2000, the assets included 98 million Novartis shares with a market value of CHF 7.0 billion. This foundation is consolidated under US GAAP and is included as a reconciling item in the US GAAP reconciliation.

In 2001, the Group granted short-term loans totaling CHF 1,189 million to the above mentioned foundations and received short-term loans totaling CHF 10 million from them. In 2000, the Group granted short-term loans totaling CHF 936 million to the foundations, received short-term loans totaling CHF 6 million from them and sold 1.4 million Novartis shares to them at market rates. In 1999, the Group granted short-term loans totaling CHF 330 million to the foundations, received short-term loans totaling CHF 192 million from them and sold 9.1 million Novartis shares to them at market prices.

In addition, there are approximately twenty other foundations that were established for charitable purposes that have not been consolidated, as the Group does not receive a benefit therefrom. As of December 31, 2001 these foundations held approximately 6.2 million shares of Novartis (2000: 6.3 million shares), with a cost of approximately CHF 39 million (2000: CHF 40 million).

See notes 5, 26 and 27 to the consolidated financial statements for disclosure of other related party transactions and balances.

29. Commitments and contingencies

Novartis Agribusiness

In connection with the Agribusiness Master Agreement between Novartis AG and AstraZeneca Plc for the spin-off and merger of their respective agrochemical businesses into Syngenta AG, there remain several assets which are not material to the business of Novartis that have not been transferred as of December 31, 2001. This is due to legal requirements that necessarily prolong administrative proceedings required for such transfer. All such administrative proceedings have been initiated and Novartis expects no difficulties for all remaining transfers to be completed during 2002.

Pursuant to the Master Agreement and related service agreements, Novartis and Syngenta, and their local subsidiaries, have agreed to render each other specified services for an interim period. These services include support for human resources; health; safety and environment; insurance; legal and other functional areas. None of the services are material to the business of Novartis and are provided merely as an accommodation to permit an orderly separation of the businesses in a manner that efficiently addresses local concerns.

Chiron Corporation

In addition to its investment in Chiron shares, Novartis has agreed to:

- purchase up to USD 500 million of new Chiron equity, at Chiron's request. To date, Chiron has made no such request.
- guarantee up to USD 703 million of Chiron debt. Utilization of the guarantee in excess of USD 425 million reduces the equity put amount mentioned above.
- guarantee an additional USD 200 million of credit facilities to enable repayment of certain convertible debt of Chiron.

Leasing commitments

Commitments arising from fixed-term operational leases in effect at December 31 are as follows:

	2001
	(CHF millions)
2002	191
2003	132
2004	84
2005	65
2006	54
Thereafter	208
Total	734

The leasing expense from fixed term operational leases was CHF 204 million, CHF 205 million, and CHF 211 million for 2001, 2000, and 1999, respectively.

29. Commitments and contingencies (Continued)

Research & development commitments

The Group has entered into other long-term research agreements with various institutions, including CHF 420 million of potential milestones and other contingent payments. As of December 31, 2001 they are as follows:

	2001	
	(CHF millions)	
2001		
2002	482	
2003	409	
2004	258	
2005	161	
2006	134	
Thereafter	36	
Total	1,480	

Contingencies

Group companies have to observe the laws, government orders and regulations of the country in which they operate. A number of them are currently involved in administrative proceedings arising out of the normal conduct of their business. In the opinion of Group management, however, the outcome of the actions referred to will not materially affect the Group's financial position, result of operations or cash flow.

The Group, along with numerous other prescription drug manufacturers, is a defendant in various actions brought by certain US retail pharmacies, alleging antitrust and pricing violations. The Group believes that these actions are without merit and is defending them vigorously.

A number of Group companies are also the subject of litigation arising out of the normal conduct of their business, as a result of which claims could be made against them which, in whole or in part, might not be covered by insurance. In the opinion of Group management, however, the outcome of the actions referred to will not materially affect the Group's financial position, result of operations or cash flow.

The material components of the Group's potential environmental liability consist of a risk assessment based on investigation of the various sites identified by the Group as at risk for environmental exposure. The Group's future remediation expenses are affected by a number of uncertainties. These uncertainties include, but are not limited to, the method and extent of remediation, the percentage of material attributable to the Group at the remediation sites relative to that attributable to other parties, and the financial capabilities of the other potentially responsible parties. The Group does not expect the resolution of such uncertainties to have a material effect on the consolidated financial statements.

30. Principal currency translation rates

	2001	2000	1999
	(CHF)	(CHF)	(CHF)
Year end rates used for the consolidated balance sheets:			
1 USD	1.68	1.64	1.59
1 EUR	1.48	1.52	1.60
1 GBP	2.43	2.45	2.58
100 JPY	1.28	1.43	1.56
Average rates of the year used for the consolidated income and cash flow			
statements:			
1 USD	1.69	1.69	1.50
1 EUR	1.51	1.56	1.60
1 GBP	2.43	2.56	2.43
100 JPY	1.39	1.57	1.34

31. Subsequent events

On January 17, 2002, the Animal Health sector announced the closing of the acquisition of two US farm animal vaccine companies, Grand Laboratories Inc., of Larchwood, Iowa and ImmTech Biologics Inc., of Bucyrus, Kansas.

Their combined 2001 revenues were approximately CHF 55 million (USD 33 million) and their combined purchase price is a minimum of CHF 160 million of which CHF 140 million will be settled in Novartis American Depositary Shares (ADS). The final purchase price may increase depending on whether certain future sales and other targets are met.

The acquisitions will be accounted for under the purchase method of accounting, and related goodwill, if any, will be amortized on a straight-line basis over a period not exceeding 20 years.

32. Group subsidiaries, joint ventures and associated companies As at December 31, 2001

The following descriptions describe the various types of entities within the Group:

- Holding/Finance: This entity is a holding company and/or performs finance functions for the Group.
- ♦ Sales: This entity performs sales and marketing activities for the Group.
- ▼ Production: This entity performs manufacturing and/or production activities for the Group.
- **A** Research: The entity performs research and development activities for the Group.

	Equity Interest	Holding/ Finance	Sales	Production	Research
Argentina Novartis Argentina S.A., Buenos Aires Labinca S.A., Buenos Aires	•		*	*	
Australia Novartis Australia Pty Ltd., Pendle Hill, NSW		•	* *	•	A
Austria Novartis Pharma GmbH, Vienna Novartis Forschungsinstitut GmbH, Vienna Biochemie GmbH, Kundl Novartis Animal Health GmbH, Kundl	•		* *	•	A
Bangladesh Novartis (Bangladesh) Limited, Dhaka	•		•	•	
Belgium N.V. Novartis Management Services S.A., Vilvoorde N.V. Novartis Pharma S.A., Vilvoorde N.V. Novartis Consumer Health S.A., Bruxelles N.V. CIBA Vision Benelux S.A., Mechelen	•	•	*		
Bermuda Triangle International Reinsurance Ltd., Hamilton Novartis Securities Investment Ltd., Hamilton Novartis International Pharmaceutical Ltd., Hamilton	•	.	•		
Brazil Novartis Biociências S.A., São Paulo	•		* *	* * *	
British Virgin Islands Novartis Capital Ltd., Road Town, Tortola	•	•			
Canada Novartis Pharmaceuticals Canada Inc., Dorval/Montreal Novartis Consumer Health Canada Inc., Mississauga, Ontario CIBA Vision Canada Inc., Mississauga, Ontario	•		* *	•	•

[•] subsidiary; >90% of the voting rights—fully consolidated

[•] subsidiary; above 50% and up to 90% of the voting rights—fully consolidated

O = investment in associated company; above 20% up to 50% of the voting rights—equity method accounting

32. Group subsidiaries, joint ventures and associated companies As at December 31, 2001 (Continued)

	Equity Interest	Holding/ Finance	Sales	Production	Research
Chile Novartis Chile S.A., Santiago de Chile	•		•		
China Beijing Novartis Pharma Ltd., Beijing	•		*	v	
Colombia Novartis de Colombia S.A., Santafé de Bogotá	•		•	•	
Costa Rica Novartis Consumer Health, S.A., Guadalupe de Cartago	•		•	V	
Czech Republic Novartis Czech Republic s.r.o., Prague	•		•		
Denmark Novartis Danmark A/S, Copenhagen	•	•	•		
Ecuador Novartis Ecuador S.A., Quito	•		•		
Egypt Novartis Pharma S.A.E., Cairo	•		•	•	
Finland Novartis Finland Oy, Espoo	•		•		
France Novartis Groupe France S.A., Rueil-Malmaison Novartis France S.A., Rueil-Malmaison Novartis Pharma S.A., Rueil-Malmaison Novartis Ophthalmics S.A., Rueil-Malmaison Laboratoires CIBA Vision Faure S.A., Annonay	•	:	*	▼	A
GNR-pharma S.A., Levallois Novartis Santé Familiale S.A., Revel Nutrition et Santé S.A., Revel Novartis Nutrition S.A., Revel CIBA Vision S.A., Blagnac Novartis Santé Animale S.A., Rueil-Malmaison	•	•	*	* * * * * * * * * * * * * * * * * * *	•
Germany Novartis Deutschland GmbH, Wehr Novartis Pharma GmbH, Nuremberg Azupharma GmbH & Co., Gerlingen near Stuttgart	•	•	*	*	A

^{• =} subsidiary; >90% of the voting rights—fully consolidated

subsidiary; above 50% and up to 90% of the voting rights—fully consolidated

O = investment in associated company; above 20% up to 50% of the voting rights—equity method accounting

32. Group subsidiaries, joint ventures and associated companies As at December 31, 2001 (Continued)

	Equity Interest	Holding/ Finance	Sales	Production	Research
BC Biochemie GmbH, Frankfurt am Main BASF Generics GmbH, Ismaning Novartis Consumer Health GmbH, Munich Novartis Nutrition GmbH, Munich CIBA Vision Vertriebs GmbH, Aschaffenburg CIBA Vision GmbH, Aschaffenburg	•		*	* * * * * * * * * * * * * * * * * * *	A A
Great Britain Novartis UK Ltd., Farnborough Novartis Pharmaceuticals UK Ltd., Frimley/Camberley Novartis Grimsby Ltd., Farnborough Lagap Pharmaceuticals Ltd., Bordon Novartis Consumer Health UK Ltd., Horsham	•	•	* *	* *	A
Novartis Nutrition UK Ltd., King's Langley	•		*	▼ ▼	A
Greece Novartis (Hellas) S.A.C.I., Athens	•		•		
Hungary Novartis Hungary Healthcare Limited Liability Company, Budapest	•		•		
India Novartis India Limited, Mumbai	•		*	*	
Indonesia PT Novartis Biochemie, Jakarta PT CIBA Vision Batam, Batam	•		•	*	
Ireland Novartis Ireland Limited, Dublin	•		•	•	
Italy Novartis Farma S.p.A., Origgio Biochemie S.p.A., Rovereto Novartis Consumer Health S.p.A., Origgio CIBA Vision S.r.l., Marcon	•	•	* *	*	A
Japan Novartis Pharma K.K., Tokyo Ciba-Geigy Japan Limited, Tokyo CIBA Vision K.K., Tokyo Novartis Animal Health K.K., Tokyo	•		* *	▼	A

^{• =} subsidiary; >90% of the voting rights—fully consolidated

[•] subsidiary; above 50% and up to 90% of the voting rights—fully consolidated

O = investment in associated company; above 20% up to 50% of the voting rights—equity method accounting

32. Group subsidiaries, joint ventures and associated companies As at December 31, 2001 (Continued)

	Equity Interest	Holding/ Finance	Sales	Production	Research
Malaysia Novartis Corporation (Malaysia) Sdn. Bhd., Kuala Lumpur)		•		
Mexico Novartis de México, S.A. de C.V., Mexico City Novartis Farmacéutica, S.A. de C.V., Mexico City Novartis Nutrition, S.A. de C.V., Mexico City Productos Gerber, S.A. de C.V., Mexico City	•	•	* *	*	
Netherlands Novartis Netherlands B.V., Amsterdam Novartis Pharma B.V., Arnhem Multipharma B.V., Weesp Novartis Consumer Health B.V., Breda	•	•	* *	V	
Netherlands Antilles Novartis Investment N.V., Curação	•		•		
New Zealand Novartis New Zealand Ltd., Auckland	•		•		
Norway Novartis Norge AS, Oslo	•		•		
Pakistan Novartis Pharma (Pakistan) Limited, Karachi	•		•	•	
Panama Novartis Pharma (Logistics), Inc., Panama	•		•		
Peru Novartis Biosciences Perú S.A., Lima	•		•		
Philippines Novartis Healthcare Philippines, Inc., Makati/Manila	•		*	•	
Poland Novartis Poland Sp. z o.o., Warsaw Alima-Gerber S.A., Warsaw	•		*	•	
Portugal Novartis Portugal SGPS Lda., Sintra Novartis Farma—Produtos Farmacêuticos S.A., Sintra Novartis Consumer Health—Produtos Farmacêuticos e Nutrição Lda., Lisbon	•	•	* *		
Puerto Rico Gerber Products Company of Puerto Rico, Inc., Carolina CIBA Vision Puerto Rico, Inc., Cidra	:		•	*	

^{• =} subsidiary; >90% of the voting rights—fully consolidated

[•] subsidiary; above 50% and up to 90% of the voting rights—fully consolidated

O = investment in associated company; above 20% up to 50% of the voting rights—equity method accounting